

What is claimed is:

1. A process for purifying ammonia removing impurities contained in a crude ammonia which comprises contacting the crude ammonia with a purification agent comprises: a manganese oxide, and at least one kind of metal oxide selected from vanadium oxide, chromium oxide, tin oxide, zirconium oxide, bismuth oxide, niobium oxide and tantalum oxide as an effective component; wherein a ratio between a number of manganese atom and a number of the entire metallic atoms of the effective component is 80 to 99%.
2. A process for purifying ammonia removing impurities contained in a crude ammonia which comprises contacting a crude ammonia with a purification agent comprises: a manganese oxide, and at least one kind of metal oxide selected from vanadium oxide, chromium oxide, stannic oxide, zirconium oxide, bismuth oxide, niobium oxide and tantalum oxide as an effective component; wherein a ratio between a number of manganese atom and a number of the entire metallic atoms of the effective component is 80 to 99%; and further contacting with a synthetic zeolite.
3. A process for purifying ammonia removing impurities contained in a crude ammonia which comprises contacting a crude ammonia with a purification agent comprises: a manganese

oxide, and at least one kind of metal oxide selected from vanadium oxide, chromium oxide, tin oxide, zirconium oxide, bismuth oxide, niobium oxide and tantalum oxide as an effective component; wherein a ratio between a number of manganese atom and a number of the entire metallic atoms of the effective component is 80 to 99%; and further reproducing the purification agent by contacting a reproduction gas with the purification agent.

4. A process for purifying ammonia removing impurities contained in a crude ammonia which comprises contacting a crude ammonia with a purification agent comprises: a manganese oxide, and at least one kind of metal oxide selected from vanadium oxide, chromium oxide, tin oxide, zirconium oxide, bismuth oxide, niobium oxide and tantalum oxide as an effective component; wherein a ratio between a number of manganese atom and a number of the entire metallic atoms of the effective component is 80 to 99%; further contacting with a synthetic zeolite; and further reproducing the purification agent and the synthetic zeolite by contacting a reproduction gas with the purification agent and the synthetic zeolite.

5. The process for purifying ammonia according to any one of Claims 1 to 4, wherein the content of said effective component is usually at least 70 % by weight in the entire purification agent.

6. The process for purifying ammonia according to any one of Claims 1 to 4, wherein said manganese oxide is MnO , Mn_3O_4 , Mn_2O_3 or MnO_2 .
7. The process for purifying ammonia according to any one of Claims 1 to 4, wherein said ratio between a number of manganese atom and a number of the entire metallic atoms of the effective component is 86 to 99%.
8. The process for purifying ammonia according to Claim 2 or Claim 4, wherein said synthetic zeolite has a pore diameter in the range of 3 to 10 Å.
9. The process for purifying ammonia according to any one of Claims 1 to 4, wherein said impurities in the crude ammonia comprises at least one compound selected from oxygen, carbon monoxide, carbon dioxide and moisture.
10. The process for purifying ammonia according to Claim 3 or Claim 4, wherein said reproducing is carried out by feeding an inert gas to said purification agent and subsequently by feeding hydrogen or ammonia.
11. The process for purifying ammonia according to any one of Claims 1 to 4, wherein a temperature contacting said crude

ammonia with said purification agent is 150 °C or lower.

12. The process for purifying ammonia according to Claim 2 or Claim 4, wherein a temperature contacting said crude ammonia with said synthetic zeolite is 150 °C or lower.
13. The process for purifying ammonia according to Claim 3 or Claim 4, wherein a temperature for reproducing said purification agent is 160 to 400 °C.
14. The process for purifying ammonia according to Claim 4, wherein a temperature for reproducing said synthetic zeolite is 160 to 350 °C.
15. The process for purifying ammonia according to Claim 3, wherein the purification of ammonia is intermittently carried out by deploying at least two lines of purification line containing the purification agent in order to supply high purity ammonia continuously; and wherein the purification agent is intermittently reproduced by supplying a reproduction gas to the latter part of the purification line.
16. The process for purifying ammonia according to Claim 4, wherein the purification of ammonia is intermittently carried out by deploying at least two lines of purification line containing both the purification agent and the synthetic zeolite

in order to supply high purity ammonia continuously; and wherein the purification agent and the synthetic zeolite are intermittently reproduced by supplying a reproduction gas to the latter part of the purification line.